

CLAIMS

1. A vacuum cleaner comprising:

a blower;

a dust collection box, said blower and said dust collection box unit

5 being working elements;

a nozzle section accommodating said blower and said dust collection box unit;

a handle coupled to said nozzle section,

wherein said nozzle section includes an upper unit and a lower unit,

10 and

wherein at least one of said working elements is supported by said upper unit and other unit disposed in said lower unit, or by said lower unit and other part disposed in said upper unit.

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2. A vacuum cleaner comprising:

a nozzle section;

a handle rotatably coupled to said nozzle section;

a blower;

20 a dust collection box unit, said blower and said dust collection box unit being working elements;

a rotary brush rotated by a motor through a belt; and

a rotary brush compartment incorporating said rotary brush, being accommodated in said nozzle section,

25 wherein said dust collection box unit has a dust suction port for guiding a dust particle from said rotary brush compartment to said dust collection box unit,

wherein said dust suction port is formed higher position than a center plane of said dust collection box unit at a side of said rotary brush compartment, and

wherein said belt is disposed at an opposite side to said side of said
5 rotary brush compartment.

3. A vacuum cleaner comprising:

a blower;

a rotary brush for sweeping a dust particle;

10 a belt for transmitting a driving force from said blower or other motor to said rotary brush; and

a belt compartment accommodating said belt, being used as an exhaust passage for passing exhaust from said blower.

15 4. A vacuum cleaner comprising:

a nozzle section;

a handle coupled to said nozzle section;

a blower;

20 a dust collection box unit, said blower and said dust collection box unit being working elements; and

a rotary brush for sweeping a dust particle, being accommodated in said nozzle section,

wherein said dust collection unit is detachably disposed at an opening provided at a side of said nozzle section.

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5. The vacuum cleaner of claim 4,

wherein said nozzle section includes a case including a lower unit

and an upper unit,

wherein said dust collection box unit includes:

a dust collection box; and

a filter unit detachably fitting to said dust collection box,

5 wherein a window is formed on a top of said nozzle section for covering said dust collection box unit, and

wherein said dust collection box unit is inserted in a space enclosed by said window and said lower unit or by said window and said upper unit.

10 6. A vacuum cleaner comprising:

a blower;

a dust collection box unit, said blower and said dust collection box unit being working elements;

15 a cleaner main body including a first outer frame disposed at a front portion thereof and a second outer frame disposed at a rear portion thereof;

a rotary brush provided in said first outer frame; and

an operating portion including a handle and a switch provided in said second outer frame.

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7. A vacuum cleaner comprising:

a nozzle section;

a handle coupled to said nozzle section;

a blower;

25 a dust collection box unit;

a rotary brush, said blower, said dust collection box unit, and said rotary brush being working elements; and

a battery for said blower,
wherein said battery and said blower are disposed at right and left sides of
said nozzle section, respectively.

5 8. A vacuum cleaner comprising:

a nozzle section crawling on a floor;

a blower;

a rotary brush for sweeping a dust particle, being accommodated in
said nozzle section; and

10 a decelerator for rotation of said blower at least in two stages for
transmitting the rotation to said rotary brush.

9. A vacuum cleaner comprising:

a blower; and

15 a dust collection box unit communicating with a suction side of said
blower, for collecting a dust particle, said dust collection box unit
including:

a dust collection box; and

a filter unit detachably fitting to said dust collection box,

20 wherein suction air passing through said dust collection box unit flows
nearly in parallel with a surface of said filter unit.

10. A vacuum cleaner comprising:

a blower; and

25 a dust collection box unit communicating with a suction side of said
blower, for collecting a dust particle, said dust collection box unit
including:

a dust collection box; and
a filter unit detachably fitting to said dust collection box,
wherein a suction passage is formed in said dust collection box unit from
one end to other end of said dust collection box unit

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11. A vacuum cleaner comprising:

a blower;

a dust collection box unit communicating with a suction side of said
blower for collecting a dust particle, said dust collection box unit
including:

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a dust collection box; and

a filter unit detachably fitting to said dust collection box;

and

a nozzle section;

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wherein an intake port of said dust collection box and an intake port of
said blower are disposed diagonally nearly in a width direction of said
nozzle section.

12. A vacuum cleaner comprising:

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a nozzle section crawling on a floor;

a blower;

a rotary brush for sweeping a dust particle;

a dust collection unit including:

a dust collection box; and

25

a filter unit detachably fitting to said dust collection box;

a belt for transmitting rotation of said blower to said rotary brush,
being disposed in said nozzle section; and

a grip provided at a side of said dust collection box, said side being opposite to said belt

13. A vacuum cleaner comprising:

- 5 a nozzle section crawling on a floor;
a blower;
a rotary brush for sweeping a dust particle;
a dust collection box unit including:
10 a dust collection box having a grip at a side thereof; and
a filter unit detachably fitting to said dust collection box;
and
a belt for transmitting rotation of said blower to said rotary brush,
being disposed in said nozzle section,
wherein said dust collection box unit is freely drawn out of and put
15 in an opening provided at a side of said nozzle section, and
wherein said grip of said dust collection box is shaped along an
appearance shape.

14. A vacuum cleaner comprising:

- 20 a nozzle section crawling on a floor;
a blower;
a rotary brush for sweeping a dust particle;
a dust collection box unit having a grip, being disposed in said
nozzle section; and
25 a safety device operating when said rotary brush is overloaded,
being disposed at a side of said dust collection box unit, said grip is
disposed at said side,

wherein said dust collection box unit is freely drawn out of and put in an opening provided at a side of said nozzle section.

15. A vacuum cleaner comprising:

- 5 a nozzle section;
 a blower;
 a rotary brush compartment having a recess formed therein,
including a rotary brush for sweeping a dust particle; and
 a dust collection box unit installed in said recess, said dust
10 collection box unit being disposed in said nozzle section,
wherein a passage for sending exhaust from said blower into said rotary
brush compartment is formed in said recess.

16. A vacuum cleaner comprising:

- 15 a cleaner main body including a charge terminal connection unit;
and
 a charger including:
 separate boxes;
 a coupling plane coupling said separate boxes; and
20 a charger terminal unit provided on said coupling plane,
wherein said cleaner main body is mounted on said coupling plane.

17. The vacuum cleaner of claim 16, wherein a forward
bottom of said cleaner main body touches down on a floor when said
25 cleaner main body is mounted on said charger.

18. The vacuum cleaner of claim 16 further comprising:

a power source transformer disposed in one of said separate boxes;
and
a printed circuit board disposed in other of said separate boxes.

- 5 19. The vacuum cleaner of claim 17 further comprising:
a power source transformer disposed in one of said separate boxes;
and
a printed circuit board disposed in other of said separate boxes.

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